

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF MINES, MINERALS AND ENERGY
DIVISION OF MINERAL MINING
ADMINISTRATIVE HEARING
O-N MINERALS (CHEMSTONE) COMPANY
SURFACE MINING APPLICATION
SHENANDOAH COUNTY, VIRGINIA**

On April 12, 2006 at 7:00 p.m., the Commonwealth of Virginia, Department of Mines, Minerals and Energy's Division of Mineral Mining held a public hearing at Strasburg Town Hall in Strasburg, Virginia. This hearing was held in accordance with Chapter 16, Title 45.1, Section 184.1 of the Code of Virginia, and the Administrative Process Act, Section 9-6.14:11. The hearing was held at the request of numerous property owners located within 1000 feet of the proposed high calcium/aggregate grade limestone quarry to be operated by O-N Minerals Company. Hearing procedures and instructions were read into the record along with closing comments. The hearing was recorded.

STATEMENT OF FINDINGS

O-N Minerals Company applied to the Division of Mineral Mining (DMM) on May 10, 2005 for a permit to operate a surface high calcium/aggregate limestone quarry located .7 of a mile southwest of Strasburg on Rt. 639 (Green Acre Drive) in Shenandoah County, Virginia. The permit application is for 107 acres of land.

Statements received from participants at the hearing and through previously submitted letters indicated the following concerns:

- Blasting -- possible physical damage to homes, wells, septic systems; possibility of flyrock; possible increase of landslides from steep slopes of Rt. 11; disruption of the human environment/human sensitivity
- Impact on property value
- Impact of commercial truck and heavy equipment traffic
- Hydrological impacts; possible groundwater depletion
- Noise and dust; Possible health problems
- Need for an Environmental Impact Assessment, impact on wildlife; possible physical and biological impact on caves
- Screening and Public Access

FINDINGS AND RECOMMENDATIONS

1. **Blasting -- possible physical damage to homes, wells, septic systems, possibility of flyrock, possible increase of landslides from steep slopes of route 11, and disruption of the human environment/human sensitivity:**

Blasting is regulated under Part VI of Virginia's Safety and Health Regulations for Mineral Mining. These regulations cover in-part the transportation of explosives, storage, use, record keeping, limits on air blast and ground vibration. These regulations were established by studies conducted by the U.S. Bureau of Mines to prevent any off-site damage to inhabited buildings. The Division of Mineral Mining investigates all citizens complaints involving blasting on mineral mine sites and can require the operator to reduce their blasting limits where necessary to prevent damage.

O-N Minerals stated at this hearing that a pre-blast survey would be offered to adjacent landowners and that blasting would only occur on week days during daylight hours. Because of the proximity of the site to residences a blasting plan should be prepared and submitted to the Division of Mineral Mining including the above statements along with the following: procedure company will follow for handling blasting complaints; prior notification of blasts to local property owners; seismic monitoring of each blast; videotaping of each blast; general parameters for blasting, including hole diameters, hole depths, burden and spacing dimensions, sub-drilling depths, stemming depths, and stemming materials (drill cuttings are not to be used for stemming); maintaining a drillers log as part of the blasting log; weather monitoring (specific conditions that will stop the scheduling of a blast or a shot being initiated including wind); a list of observed holidays; measures to prevent flyrock; and the posting of blasting signs and signals.

2. **Impact on property value:**

Chapter 16, Title 45.1 of the Code of Virginia does not grant the Division of Mineral Mining the authority to regulate land-use. Land-use issues such as these are under the jurisdiction of local government authorities, and are not considered in the permitting process even in those circumstances where local authorities impose no restrictions. Based upon the finding that the Division of Mineral Mining has no regulatory authority over the stated issues that are associated with land-use decisions, no recommendation is set forth in this matter.

3. Impact of commercial truck and heavy equipment traffic:

The Virginia Department of Transportation in their letters dated February 16, 2005 and July 8, 2005 states that there are no objections to utilizing the existing entrances on Rt. 639/Green Acre Drive for initial move and occasional equipment moving on or off the site. The July 8th letter states that Green Acre Drive is not designed for commercial truck traffic on any regular basis but that Junction Road or Battlefield Road should be able to handle projected traffic.

O-N Minerals should submit additional design/permit data on the Green Acre Drive entrance to include landscaping, any drainpipe installation, cross-section, and measures to prevent tracking of debris onto the public roadway. O-N Minerals will need to obtain a VDOT permit for an on-grade crossing of Green Acre Drive/Rt. 639 before this entrance can be used commercially.

O-N Minerals stated at this public hearing that a wheel wash system and 100 feet of asphalt would be used at their proposed Junction Road/Ash Street boundary. This permit/design data needs to be submitted for approval. Section 4 VAC 25-31-350 of Virginia's Reclamation Regulations for Mineral Mining states that internal service roads and principal access roads shall be planned to minimize the impact of traffic, dust and vehicle noise on developed areas outside the mining site.

4. Hydrological impacts; possible groundwater depletion:

Section 4 VAC 25-31-130 (6) requires that mineral mining permit applications contain an assessment of the potential for hydrological impact and a plan for minimization of any adverse impacts. A hydrologic site assessment has been submitted and reviewed. Four monitoring wells have been completed.

O-N Minerals stated at this public hearing that if the proposed mining operation renders a water supply well unusable for its intended purpose, Chemstone will repair the problem by lowering the pump, deepening the well, drilling a replacement well, or providing hook-up to a public water supply at no cost to the affected well owner.

O-N Minerals should submit a plan stating the above along with the following: procedure for handling hydrological complaints to include the process of investigation/determination of mining impacts, and addressing the issue of temporary water supplies (specific homes within given radius based on hydrologic assessment).

5. Noise and dust; possible health problems:

The Federal Mine Safety and Health Administration (MSHA) and the Division of Mineral Mining regulate the exposure of mine workers to noise and dust by enforcing Threshold Limit Values established by the American Conference of Governmental Industrial Hygienists (4 VAC 25-40-90 and Part V of the Virginia Safety & Health Regulations). Noise levels from mining equipment are regulated under section 4 VAC 25-40-360, which requires that all mobile and stationary equipment be maintained in accordance with manufacturer's specifications.

With respect to noise level control, O-N Minerals should provide a site assessment that includes impact on residences adjacent to the proposed permit line. The assessment should include actions, if any, to be taken in addition to buffers, comparative work elevation, and screening berms to lessen impact of noise levels on adjacent property owners. The combined actions taken should result in a noise level exposure attributable to the operation that does not exceed 70 dB over a 24-hour period (time weighted average) at any point along the property boundary. The U.S. Environmental Protection Agency (EPA) recommends this level as the 24-hour equivalent sound level exposure limit that protects against long-term hearing impairment.

With respect to dust control, O-N Minerals should provide additional information that describes the prevailing wind direction, average wind speed, and predicted impacts, if any, of off-site accumulations of dust associated with ambient air movement. In addition to wet suppression and berms, consideration should be given to other methods of dust control including limiting the number of acres disturbed at any one time, temporary seeding, use of tarps or enclosed structures, and the type of road surface. Any additional measures to control dust should be included with the submittal of this data.

6. Need for an Environmental Impact Assessment:

Virginia's mineral mining laws are governed by Chapters 14.1, 14.4:1, 14.5, 14.6, 14.7:1, 14.7:2, 16, and 18.1 of the Code of Virginia. This legislation does not require an environmental impact assessment. Applicants for surface mining permits are required to address such issues as: reclamation bonding, mapping, storm drainage/sediment control, screening, construction standards including overburden storage/slopes/roads, simultaneous reclamation practices, post-mining land-use, hydrology, blasting and other safety & health issues. These issues are addressed through the permit application process and this hearing's decision.

7. Screening and public/restricted access:

Screening is addressed in the permit application through the proposed building of a screening berm on the permit side of the Norfolk & Southern Railroad tracks and a 25 foot buffer along the southeast permit/property line. Reclamation regulation 4 VAC 25-31-420 requires 100 feet of undisturbed forest unless natural vegetation, planted earth berms, natural topography, or appropriately designed walls or fences are approved in the reclamation plan.

The quarries will be below elevation of the natural topography after initial topsoil/overburden removal and possible initial drilling is completed. Screening of overburden removal needs to be addressed in regards to the southeast permit line. As the topography changes along the southeast permit line various screening measures may need to be incorporated. This would include the permitted area on east & west sides of Green Acre Drive. Screening along the railroad tracks east of Green Acre should also be addressed. The typical property border cross-section shows a final slope at the “angle-of-repose.” Final slopes should be a minimum of 2:1 (horizontal to vertical) unless specific stabilization measures are included in the reclamation/operations plan. The permit application needs to be updated by either showing a 2:1 slope or submitting data on the “angle-of-repose” slope specifying the degree of slope and measures that will be taken to stabilize the slope.

Restricted access is required under 4 VAC 25-40-290 and fencing upon abandonment under 4 VAC 25-40-300 of Virginia’s Mineral Mining Safety and Health regulations. O-N Minerals needs to submit additional information on its actions to restrict access that will be done in coordination with screening.

CONCLUSION

After considering the testimony given at the public hearing in Strasburg, Virginia and after reviewing all statements, documents, maps and plans submitted to the Division of Mineral Mining, my recommendation to the Director is the O-N Minerals (Chemstone) Company does not qualify for a Surface Mining Permit until the terms outlined in the “Findings and Recommendations” portion of this document are met.

Gary E. Barney, Hearing Officer
Division of Mineral Mining